City of Los Angeles
Bureau of Sanitation
Terminal Island Water Reclamation Plant (TIWRP)

Proposed Special Study
Improving Method Detection Limit (MDL) for Total Cyanide in Los Angeles Harbor (LAH) Ambient Water Samples
Phase 2

Introduction:

Prior to Phase 1 of this study, the MDL for total cyanide at the Environmental Monitoring Division (EMD) was 4 ppb. The current monthly average cyanide limit in the TIWRP NPDES permit is 0.5 ppb and the daily maximum limit is 1 ppb. The interim monthly average limit is 11 ppb, which expires on March 10, 2010. Since previously, EMD's MDL was higher than the NPDES monthly average of 0.5 ppb, EMD conducted Phase 1 of the study to lower the MDL and to determine if LAH ambient cyanide concentration levels are less than the permit limit and the California Toxics Rule (CTR) Criterion Maximum and Criterion Continuous Concentrations of 1 parts per billion (ppb).

We have met the objectives of Phase 1 of our study by achieving an MDL of 0.5 ppb for cyanide and beginning the collection and testing of LAH ambient water samples to establish background cyanide concentration levels.

Objectives:

In Phase 2 of our study, we propose to continue collecting LAH ambient water samples, until at least 12 sets of monthly samples have been collected and analyzed. The data from these samples will be used to establish the background cyanide concentration levels in LAH.

If the Phase 2 study results show that the ambient cyanide levels in LAH are less than the CTR values, the City will request dilution credits for total cyanide in the TIWRP NPDES Permit.

Benefits:

The Phase 2 of our study will allow us to determine if the City can request inclusion of dilution credits for total cyanide in the TIWRP NPDES Permit.

Approach:

Phase 2 of our study will involve collecting LAH ambient water samples from 12 stations. These stations are HW20, HW23, HW24, HW33, HW44, HW49, HW50, HW53, HW54, HW56, HW62, and HW64 (see Figure 1). We will then compile the data, write a summary report, and perhaps request the Regional Board for granting of dilution credits for total cyanide in the TIWRP NPDES Permit.

Project Duration:

This additional phase will take approximately one year to complete with anticipated completion by December 2009.

Deliverables:

The Phase 2 study will involve collecting and analyzing ambient water quality samples from 12 LAH stations to gather at least 12 monthly observations. If the Phase 2 study results show negligible cyanide concentration levels in LAH ambient water, then the City will request dilution credits for total cyanide in the TIWRP NPDES Permit.

Collaborators:

None.

Figure 1: Los Angeles Harbor Water Sampling Stations